

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please cancel claims 1-13 without prejudice.

Please add claims as follows.

Listing of Claims:

Claims 1-13 (canceled)

14. (new) A method of achieving a contraceptive effect comprising administering an inhibitor directed against a plasma membrane calcium ATPase 4 (PMCA4) isoform, thereby inhibiting sperm mobility.

15. (new) The method according to claim 14, wherein the PMCA4 inhibitor is selected from the group consisting of a 5- or 6-carboxyeosindiacetate succinimidyl ester, an eosin, a fluorescein, caloxin 2a1 and spermin.

16. (new) The method according to claim 14, wherein administering the PMCA4 inhibitor is achieved orally, parenterally or as a coated mechanical contraceptive.

17. (new) The method according to claim 14, wherein administering the PMCA4 inhibitor is performed as a single contraceptive event or as a repeated contraceptive event.

18. (new) The method according to claim 14, wherein the PMCA4 inhibitor is administered to a mammal.

19. (new) The method according to claim 18, wherein the mammal is a human being.

20. (new) A contraceptive composition comprising the PMCA4 inhibitor of claim 14 and a pharmaceutically acceptable carrier.

21. (new) The contraceptive composition according to claim 20, further comprising a conventional contraceptive.

22. (new) The contraceptive composition according to claim 21, wherein the conventional contraceptive is a condom.

23. (new) A method for diagnosing infertility in a human male, comprising identifying a mutation or a post-translational modification of a gene encoding the PMCA4 isoform according to claim 14.